

Navajo Nation Department of Information Technology (NNDIT)

Helpdesk Policy P100

HelpDesk Problem & Request Management Process

The following discussion of Problem Management procedures is intended to provide a baseline understanding of how problems and requests and the resulting issue resolution and knowledge will be managed by the DIT HelpDesk. Managing problems and requests properly is a critical goal of the DIT HelpDesk.

Problem resolution involves three primary groups of people: the DIT HelpDesk, DIT Service Providers, and DIT Customers. This document defines the roles and responsibilities of each of these three groups and then describes the Problem Management model in detail including severity levels, priority codes and service level response objectives.

HelpDesk

The DIT HelpDesk receives, troubleshoots, and responds to end-user problems or requests, logs and tracks the problems or requests and determines the best manner to address the problems or requests. One of the top priorities of the DIT HelpDesk is to ensure a consistent response to problem resolution, service requests, status reporting and notification of changes related to the information technology environment of the Navajo Nation.

HelpDesk Support Levels

- 1) Level 1
Basic level of support where service programs are *logged* into the DIT HelpDesk, triaged, troubleshoot, and elementary problems are resolved. Examples of this include basic “how to” questions, hardware diagnostics, password resets, account creation, etc.
- 2) Level 2
This level of support is where incoming customer phone calls or e-mails are logged into the DIT HelpDesk. The relevant problem or request details are obtained and the call is routed to an appropriate support resource. (*Desktop, Network, Development, or Operations Support*)
- 3) Level 3
This level of support is not generally provided by the DIT HelpDesk. However, the call is received by the DIT HelpDesk; they will log the call and attempt to direct the caller to an appropriate resource. The original call may also go to an internal service provider directly, such as directly to an application developer or manager, or to a network services technician, a LAN manager, or to a desktop

technician. These problems usually involve advanced levels of support that require specialized technical or application expertise and possibly outside vendor assistance.

All Calls should be handled by the DIT HelpDesk to maintain an accurate record of the NN service requests.

Systems and Tools

The DIT HelpDesk utilizes an in-house software application developed by DIT programmers to manage problems and requests that are received at the DIT HelpDesk from Navajo Nation Information Technology users.

- **DIT Helpdesk program** – is a powerful enterprise-wide IT problem management solution. DIT has invested in the deployment and utilization of this application to streamline the many complex processes required to support our customers.
- **Web Center Plus** – this is a web-based front-end to the DIT database and application engine. It provides the capability for any DIT service provider or HelpDesk analyst to access, review, update, and close service tickets from their office or any other customer location via the NN internal intranet.

A future capability would allow users to enter request tickets directly into the system from their desktop and also allow them to check the status of an open request ticket from their desktop.

- **Others** – the DIT HelpDesk is working to implement other desktop remote control and monitoring tools to enable the DIT HelpDesk analysts to provide quicker problem resolution to customers without having to dispatch service request tickets to other DIT service providers. This avoids expensive desktop “touch” visits.

HelpDesk Responsibilities

- The HelpDesk is expected to provide basic problem resolution according to the complexity of the problem, and their experience with the specific problem – the more calls the DIT HelpDesk can resolve without escalating to a DIT Internal Service Provider, the better.
- Completing DIT HelpDesk ticket information as completely and as accurately as possible to capture basic level 1 information and the problem or request. Customized DIT Helpdesk panels may be developed for specific types of problems to capture additional information that may be useful in solving the problem.

- Managing the ongoing operation, administration, support, and stability of the DIT Helpdesk and Web Center applications are the backbone of this support model and mission critical to the DIT HelpDesk and internal DIT Service Providers.
- Ensuring that DIT HelpDesk Analysts are adequately trained in the technologies and applications and Users designated as NN priorities (i.e. OP/VP, Legislative Offices, PD, FMIS, HRIS, etc.). This is a shared responsibility with the internal DIT Service Providers.
- Providing management reporting capabilities from the DIT Helpdesk system to assist DIT Service Providers in gathering and analyzing the information they need to effectively manage DIT Helpdesk tickets assigned to their groups.

Internal Information Technology Service Providers

Every department of the NN, as well as school or departmental IT organizations has some responsibility for problem management. The DIT HelpDesk provides level 1 and sometimes level 2 support responsibilities. While DIT HelpDesk strives to resolve as many problems as possible, it is frequently necessary for other information technology organizations - Vendors and departments outside of the DIT HelpDesk to address problems with specific areas of technology (Security, Network, etc.) or specific customer base (i.e. FMIS, HRIS, NCJIS, CRIS, etc.).

Current NN information technology service providers that utilize the DIT HelpDesk problem management process are:

- DIT HelpDesk – provides level 1 and level 2 supports for the NN's technology infrastructure and other administrative applications. Primary areas served are central administrative, Agency, and Chapter customers.
- NN Network Section – provides support for the WAN and certain LANs throughout the NN campus, primarily for users in central administration and Agency sites.
- NN Programming – provides support for ad-hoc programs and other software systems.
- NN Desktop – provides support for PCs, hardware and software systems, and other related peripherals.
- LAN Managers & School IT Organizations – many schools and some departments have their own information technology infrastructure such as wide area networks (WANS), local area networks (LANS), desktops, applications, file servers and printers.

NN DIT Service Providers Responsibilities

DIT Service providers are expected to follow the Problem Management Process and utilize the DIT Helpdesk application appropriately and to ensure that all problems are handled in a consistent, repeatable, and predictable manner.

- Acknowledging a service request assigned by the DIT HelpDesk entry person.
- Completing DIT HelpDesk log/journal on the status or progress of a ticket at 2 hour intervals.
- Completing the DIT HelpDesk ticket journal upon completion to describe the resolution – this provides a knowledge base of information that can be utilized by all service providers and by the DIT HelpDesk support analysts.
- Providing DIT HelpDesk with technical information and problem solving techniques, when requested. When the DIT HelpDesk continuously receives problem calls on certain issues, they may request that additional training, FAQs, information websites, and/or documentation be developed or updated to reflect the types of calls being received.
- Assisting the HelpDesk Manager to resolve escalated problems. The HelpDesk Manager is responsible for assessing the criticality of a given situation or user and appropriately escalating any special situation to an internal service provider. The HelpDesk Manager should exercise discretion in the escalation of any situation – but should expect that the internal service provider will follow through with any DIT HelpDesk tickets that are escalated. This will frequently involve upset customers, VIP customers, or critical infrastructure and application failures that are causing a high volume of DIT HelpDesk tickets.
- Forming emergency response teams to correct large/wide scale NN IT problems: Malicious attacks, worms, virus', spyware, malware, and etc.
- Any network configuration changes that are made will be noted on the service request for that particular call. Information concerning these changes will be shared with all technicians and affected customers, with the work order number referenced, should additional information be needed.

DIT Information Technology Customer

The DIT HelpDesk provides service to multiple locations, departments, **schools**, teams, and individuals. The following is a brief description of each customer. Culturally, it is important to understand the type of customers that exist in order to provide proper support.

- VIP/Executive –customers who fall into this category have a title of director or higher, including the NN President/Vice President, Council Delegates, etc. They usually get high priority codes when warranted.

- Technically Advanced Users – customers in this category have a high level of information Technology expertise and generally have problems that are beyond level 1 or level 2 supports. They have usually already triaged their problems according to published FAQs and get a high priority code when warranted.
- IT Service Providers – this group includes the technicians, managers, and developers from all the groups above in “Internal Technology Service Providers”. These customers generally depend heavily on their desktops and infrastructure to perform their day to day responsibilities and “downtime” generally means unproductive time. These customers will get a high priority code warranted.
- Routine User – this is the largest group of customers and generates by far the largest number of support calls to the DIT HelpDesk. Generally they are requesting routine services or information that can normally be provided under normal service level arrangements and can be given normal priority code.

However, the routine user often provides a “first alert” when reporting problems, especially with enterprise applications (i.e. Exchange, MS-Office, etc.) or with network connectivity. The first few calls may indicate a much bigger problem such as an ‘application down’ or ‘system down’.

Information Technology Customer Responsibilities

The Information Technology customers are expected to understand and follow the Problem Management Process so that all Information Technology resources may be appropriately allocated and problem resolutions can be reached expeditiously.

- Read and follow information FAQs, website information, and other support processes when available prior to calling the DIT HelpDesk or DIT Service Providers.
- Provide the DIT HelpDesk with all information requested so that the problem can be logged into the DIT HelpDesk, triaged and routed appropriately without repeated calls to the User to gather problem details.
- Where local or departmental IT support groups exist, Users should utilize these resources prior to calling the DIT HelpDesk. The call will be referred back to the internal departmental IT support group to get resolved. If there is no success there, DIT technical support will accept the call.

HelpDesk Problem Management Model

Severity Levels and Priority Codes

A problem is an unplanned or unexpected event that deviates from standard activities or normal operating conditions. The following severity levels and priority codes document

the prioritization and resolution of problem types. These definitions will be consistently communicated and utilized by all DIT HelpDesk analysts when dealing with commonly shared problem, requests, and changes.

Severity Levels are designed to work in conjunction with Priority Levels. Severity Levels identify the pure business impact of a problem or request whereas Priority Codes offer a way to capture the business situation or requirement on a personal level. Both the Severity Level and the Priority Code must be assessed and captured on the DIT HelpDesk ticket. The use of these criteria is designed to assist in workflow prioritization based on common definitions.

Severity Levels – a code that identifies a technology failure, which has direct business impact. The code allows the DIT HelpDesk to respond appropriately with the proper resources within a predefined timeframe. It is not based on the emotions or circumstances of the customer.

Severity Level Definitions

Severity Levels	Scope	Examples
Emergency -1		
A major production outage, performance degradation, or instability causing significant impact to the NN.	<ul style="list-style-type: none"> Many or most customer are unable to function Mission Critical System down Mission Critical Application Down Mission Critical Server/Circuit Down 	HIRS/FMIS, PD servers, Exchange/Email, Firewall
Large numbers of customers are impacted. Entire office, department or school is experiencing a similar problem. Small number of customers can not use a mission critical application.	<ul style="list-style-type: none"> Multiple Customers Unable to Function Major Performance Issues Multiple Customers Running on Contingencies or work-around Backup failure of mission critical application 	MS operating systems, Linux, Netscape, etc.
Individual unable to use non-mission critical applications(s). Customers can work with minimal impact to their productivity	<ul style="list-style-type: none"> Customer having difficulty, but basically operational. Customer unable to carry out their necessary tasks 	
Individual request or problem that does not impact business.	<ul style="list-style-type: none"> Customer needs information or a standard service such as IMAC (Install, Move, Add, Change) Customer has simple question or problem How's to's or Procedural questions 	

Priority Code – A code that allows the customer’s unique situation, title, or emotion to be documented and taken into account when the HelpDesk priorities its workflow. This code allows the IS organizations to respond appropriately with the proper resources within an acceptable timeframe.

Priority Code Definitions		
Priority 1	<ul style="list-style-type: none"> • VIP is experiencing an impact to productivity or requires special attention • Individual is experiencing significant productivity • Existing/new employee is completely inoperable 	
Priority 2	<ul style="list-style-type: none"> • Individual is requesting faster than average response based on actual business need • Individual is requesting scheduled service that has a hard deadline for resolution or fulfillment 	
Priority 3	<ul style="list-style-type: none"> • Individual is experiencing average operational impact from problem or request and does not have above average or extenuating circumstances 	
Priority 4 (default)	<ul style="list-style-type: none"> • Individual has made a service request in advance of need that is easily handled with SLA • Usually a severity 4 request • Customers agrees that this is a priority 4 item 	

Service Level Response Objectives Matrix by Severity Level

These services level response objectives are intended to be a general guideline of expectations for providing service to DIT customers. Specific Service Level Agreements (SLAs) may take precedence over these guidelines.

Severity

Response Parameter

Prime Time

Level 1	Acknowledge/accept ticket initial situation response status notification interval maximum resolution time goal	15 minutes 1 hour every 2 hours 24 hours
Level 2	Acknowledge/accept ticket initial situation response status notification interval maximum resolution time goal Escalate condition if not resolved maximum time goal	1 hour 2 hours every 4 hours after 24 hours 24 hours
Level 3	Acknowledge/accept ticket initial situation response status notification interval maximum resolution time goal Escalate condition if not resolved maximum time goal	2 hours 2 hours 24 hours
Level 4	Acknowledge/accept ticket initial situation response status notification interval maximum resolution time goal Escalate condition if not resolved maximum time goal	2 hours 2 hours 24 hours

Service Level Response Definitions

Acknowledge/accept ticket	<p>Once the HelpDesk dispatches a ticket to another internal IT Service provider's queue, a support representative from that provider must accept the ticket.</p> <ul style="list-style-type: none"> IT server Provider must acknowledge/accept ticket and accountability for resolution. IT Service Provider must contact User within this timeframe to verify assignment/receipt of ticket and verify acceptance (for severity 1 & 2 tickets, the IT Service Provider may request that the HelpDesk deliver a general response or outage notification to all affected users)
Initial Situation Response	<p>Severity levels 1 and 2 require that an initial response be developed that outlines (develop a template?):</p> <ul style="list-style-type: none"> Understanding of the issue Plan of action Estimated resolution time Who is accountable for resolution Who are the customers affected <p>The initial situation response must be sent to the HelpDesk and IT director (who else?)</p> <p>The purpose of the Initial Situation Response is to provide immediate notification of a major outage or problem so that all parties are aware of the problem and may immediately assist with the resolution rather than sequentially passing the problem from group to group</p>
Status Notification Intervals	The current owner of the ticket must provide updated information of the ticket resolution

	<ul style="list-style-type: none"> • Updated status • Last update time/date <p>This will allow the HelpDesk to provide updated status information to customers who call to check the status of a ticket and will allow all service providers to understand the current status of a ticket</p>
Escalation Condition if not resolved	When the resolution time limit threshold is passed and the Priority Level moves to the next highest level.
	<ul style="list-style-type: none"> • If the priority level is escalated – then the IT service provider is accountable for and has discretion over the escalation procedure
Maximum Resolution time limit	Maximum allowable time to resolve a ticket. This is a target and service goal. This may vary depending on the complexity of the problem or request.



Navajo Nation Helpdesk System

